REMARKS/ARGUMENTS

The Office Action mailed August 26, 2004 has been carefully considered. Reconsideration in view of the following remarks is respectfully requested.

Claims 1, 19, 41 and 59 have been amended to further particularly point out and distinctly claim subject matter regarded as the invention. Support for these changes may be found in the specification, page 21, line 7. The text of claims 2-18, 20-32 and 42-58 is unchanged, but their meaning is changed because they depend from amended claims.

The 35 U.S.C. § 103 Rejection

Claims 1-59 were rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Valencia[1] in view of Puthiyandyil et al.,[2] and in further view of Heimendinger et al.[3], among which claims 1, 19, 33, 41 and 59 are independent claims. This rejection is respectfully traversed.

According to the Manual of Patent Examining Procedure (M.P.E.P.),

> To establish a *prima facie* case of obviousness, three basic criteria must be met. First there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in the applicant's disclosure.[4]

[1] U.S. Patent 5,918,019
[2] U.S. Patent 6,763,018
[3] U.S. Patent 6,278,532
[4] M.P.E.P § 2143.

Specifically, the Office Action contends that the elements of the presently claimed invention are disclosed in Valencia except that Valencia does not teach forwarding IP frames received from said client over a link other than said Layer 2 tunnel.[5] The Office Action further contends that Puthiyandyil teaches this element and that it would be obvious to one having ordinary skill in the art at the time of the invention to incorporate Puthiyandyil into Valencia in order to process several PPP sessions simultaneously thereby enabling the network server to operate at higher levels of efficiency. The Office Action further contends that neither Valencia nor Puthiyandyil teach creating an ingress PPP object associated with an incoming PPP session, a host object associated with said client, and an egress PPP object associated with said Layer 2 tunnel, creating an egress IP object based upon obtained user domain information, said egress IP object associated with IP-based forwarding, linking said ingress PPP object, said host object, and said egress PPP object, or linking said host object and said egress IP object. The Office Action further contends that Heimendinger teaches these elements, and it would be obvious to one having ordinary skill in the art at the time of the invention to incorporation Heimendinger into Valencia and Puthiyandyil in order to receive information from a source and transfer the information to a destination. The Applicants respectfully disagree for the reasons set forth below.

Claim 1 as amended includes the element "setting up a Layer 2 tunnel for said client". It should now therefore be clear that the Layer 2 tunnel is one that has been set up for the client, and not one that is generic or one that can be utilized by many clients. This element is then carried forward to several other acts in the method, which will be discussed in further detail herein.

[5] Office Action ¶ #2.

The Office Action maintains that Puthiyandil teaches "forwarding IP frames received from said client over a link other than said Layer 2 tunnel". The tunnel in Puthiyandil, however, is NOT for the client, but is rather a generic tunnel between a modem and a route server. The route server utilizes the tunnel to provide routing information to the local modem, so that the modem may perform distributed routing through its IP distributed forwarding entity (see Col. 8, line 25 through Col. 9, line 45. However, the tunnel itself is not for the client. Thus, neither Valencia nor Puthiyandyil teach forwarding packets from a client over BOTH a Layer 2 tunnel for the client, and another link. This is not a minor distinction, and it allows the present invention many advantages over a hypothetical invention combining Valencia and Puthiyandyil. Applicant will now provide an example of one of these advantages for illustrative purposes, recognizing that such an example is not a part of the claim, but hoping that this may help explain why the fact that the Layer 2 tunnel is for the client is a major distinction that would not be an obvious variation from prior art solutions. The present invention is able to provide IP-based services to the PPP client through a link other than the Layer 2 tunnel without impairing the Layer 2 access services for the PPP client. The hypothetical invention combining Valencia and Puthiyandyil would not be able to do that as any Layer 2 tunnel created <u>for the client</u> would have to be terminated before providing IP-based services for the client through another link.

The Office Action further maintains that Heimendinger teaches the creation of an ingress PPP object, host object, egress PPP object, and egress IP object, and their linking. However, the cited sections of Heimendinger do not reflect any sort of indication of two different types of egress objects (an egress PPP object and an egress IP object). Heimendinger speaks only generically about destination objects which are based on determined destinations. However,

there is no indication that these destination represent different types of connections, let alone a layer 2 tunnel and a non-layer 2 tunnel. The Office Action itself corresponds a session object of Heimendinger with an egress PPP object, but provides no such corresponding object in Heimendinger to an egress IP object. As can be seen from FIG. 4 of the present application, the egress PPP object 37 may contain a connection object 61, aggregation object 63, and a tunnel object 65, while an egress IP object 39 may contain a connection object 67 and a service object 69. While this is merely an example of an egress PPP object and egress IP object, applicant maintains that it is clear that the egress PPP object and egress IP object are different types of objects, one allowing a connection through a Layer 2 tunnel and the other through a non-Layer 2 tunnel. Heimendinger shows no such distinction.

Claims 19, 33, 41, and 59 contain similar limitations as claim 1, and thus Applicant respectfully maintains that these claims are also in condition for allowance for the reasons specified above.

As to dependent claims 2-18, 20-32, 34-40, and 42-58, the argument set forth above is equally applicable here. The base claims being allowable, the dependent claims must also be allowable.

In view of the foregoing, it is respectfully asserted that the claims are now in condition for allowance.

Conclusion

It is believed that this Amendment places the above-identified patent application into condition for allowance. Early favorable consideration of this Amendment is earnestly solicited.

If, in the opinion of the Examiner, an interview would expedite the prosecution of this application, the Examiner is invited to call the undersigned attorney at the number indicated below.

Applicant respectfully requests that a timely Notice of Allowance be issued in this case. Please charge any additional required fee or credit any overpayment not otherwise paid or credited to our deposit account No. 50-1698.

Respectfully submitted,

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